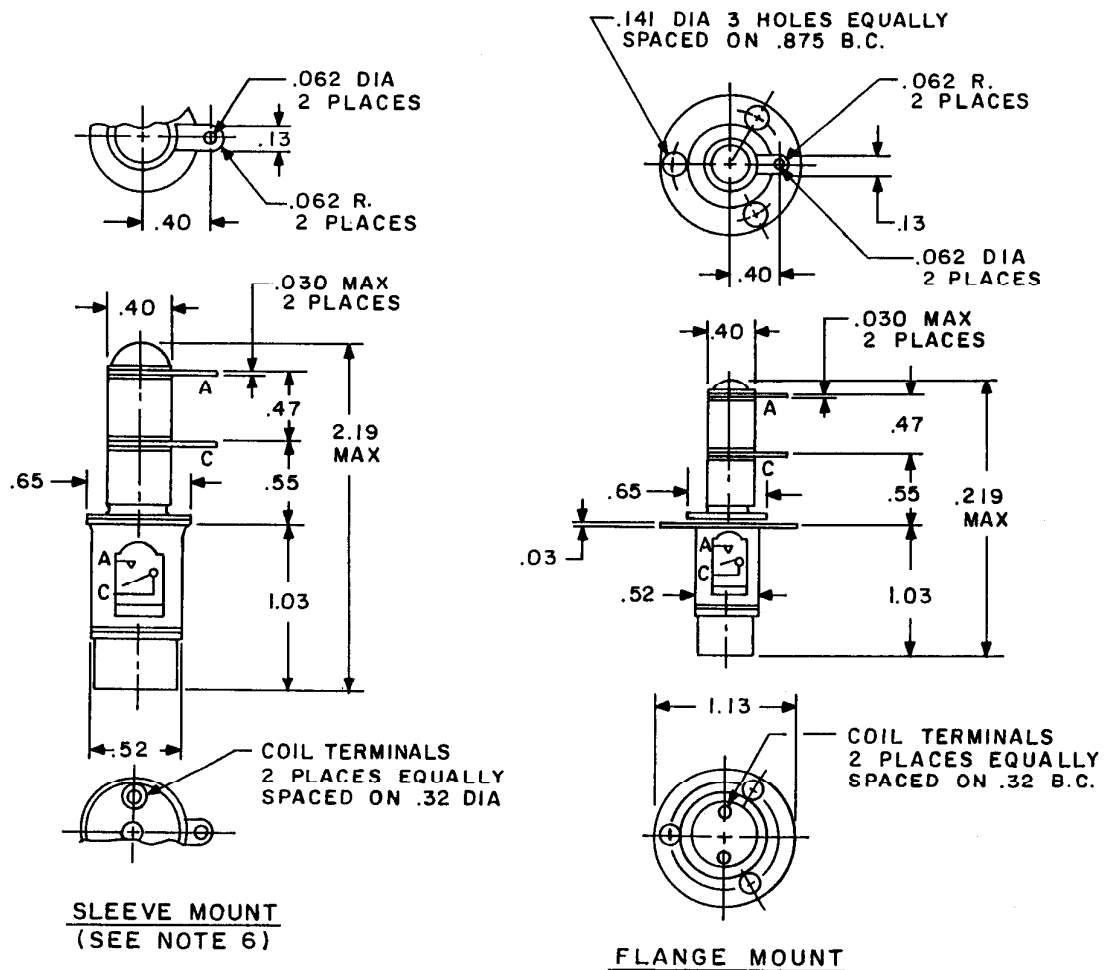


MILITARY SPECIFICATION SHEET

RELAYS, VACUUM, SPST, N. O., 12 AMPERES DC,
 OR 60 HZ RMS, 10 KILOVOLTS PEAK DC

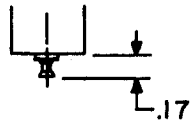
This specification sheet is approved for use by the Department of the Air Force, and is available for use by all Departments and Agencies of the Department of Defense.

The requirements for acquiring the relays described herein shall consist of this specification and the latest issue of MIL-R-83725.

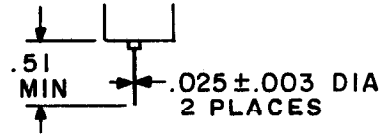


⑧ FIGURE 1. Relay dimensions and configurations.

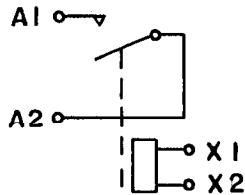
⑧ denotes changes



TURRET TERMINAL
(SEE NOTE 4)



WIRE LEAD



CIRCUIT DIAGRAM

INCHES	mm
.03	0.8
.062	1.57
.13	3.3
.141	3.58
.17	4.3
.32	8.1
.40	10.2
.47	11.9
.52	13.2
.55	14.0
.65	16.5
.875	22.23
1.03	26.2
1.13	28.7
2.19	55.5

NOTES:

1. Dimensions are in inches.
2. Metric equivalents are given for general information only.
3. Unless otherwise specified, tolerances are $\pm .010$ (.25 mm) for three place decimals and $\pm .03$ (.8 mm) for two place decimals.
4. Shape of turret terminals optional, however they shall accommodate two No. 22 AWG wires as a minimum.
5. Glazed finish on ceramic insulator is optional.
6. Sleeve mount relays mounted by .52 inch (13.2 mm) diameter of body of coil housing or by .65 inch (16.5 mm) diameter in center of relay.

(B) FIGURE 1. Relay dimensions and configurations- Continued.

MIL-R-83725/17B(USAF)

REQUIREMENTS:

CONTACT DATA:

Configuration: SPST, N/O.
Arrangement: 1 form A.
Load ratings:
 Resistive: (carry only).
 12 amperes dc or 60 Hz rms.
 10 amperes rms, 2.5 MHz.
 6 amperes rms, 16 MHz.

Rated operating voltage:
 10 kilovolts peak dc or 60 Hz rms.
 7 kilovolts peak, 2.5 MHz.
 6 kilovolts peak, 16 MHz.

Contact resistance:
Rated life:
 Before: .020 ohm, maximum.
 During: .100 ohm, maximum.
 After: .100 ohm, maximum.

Contact bounce: Not applicable.

Capacitance:
 1.6 pF, maximum across open contacts.
 1.6 pF, maximum between common and frame.

Ⓑ COIL DATA: (See table I).

Duty rating: Continuous.
Operate time: 15 milliseconds, maximum over temperature range.
Release time: 15 milliseconds, maximum over temperature range.

ELECTRICAL DATA:

Insulation resistance: 1,000 megohms, minimum, except the resistance between coil and housing at high temperature, shall be 500 megohms or greater.

Dielectric withstanding voltage:

At atmospheric pressure: 60 Hz.
 Between all mated contacts in the open position: 12 kV peak.
 Between high voltage terminals and housing: 12 kV peak.
 Between coil and housing: 500 V rms, 60 Hz.

ENVIRONMENTAL DATA:

Temperature range: -55°C to +125°C.
Vibration: MIL-STD-202, method 204, test condition C (10-55 Hz, .06 inch DA/55-2000 Hz, 10 G's).
Shock: MIL-STD-202, method 213, test condition J, 30 G's, 11 milliseconds, half sine.

PHYSICAL:

Terminal strength: 5 pounds pull.
Dimensions and configuration: See figure 1.
Termination: Solder terminal.
Weight: 1 ounce, maximum.

LIFE TEST REQUIREMENTS:

Mechanical cycling: 1,000,000 cycles. Two sample units (cycling rate, 36,000 per hour maximum; contact current shall not exceed 10 milliamperes).

(B) TABLE 1. Dash numbers and characteristics.

Dash number M83725/17 -	Coil data (V dc)		Coil resistance Ohms ±10%	At 25°C				Over temperature range				Mounting	Terminal type
	Nominal 1/	Maximum		Pickup voltage (V dc)	Hold voltage (V dc)	Dropout voltage (V dc)	Pickup voltage (V dc)	Hold voltage (V dc)	Dropout voltage (V dc)				
001	26.5	32	290	16	10	1.0	22	14	0.7	Sleeve	Turret		
002	"	"	"	"	"	"	"	"	"	Flange	"		
003	"	"	"	"	"	"	"	"	"	Sleeve	Wire		
004	"	"	"	"	"	"	"	"	"	Flange	"		
005	12	15	70	8.0	5.0	0.5	11	7.0	0.3	Sleeve	Turret		
006	"	"	"	"	"	"	"	"	"	Flange	"		
007	"	"	"	"	"	"	"	"	"	Sleeve	Wire		
008	"	"	"	"	"	"	"	"	"	Flange	"		

1/ CAUTION: Use of any coil voltage less than the nominal coil voltage will compromise the operation of the relay.

MIL-R-83725/17B(USAF)

QUALITY ASSURANCE:

Dielectric withstanding voltage:

Tests to be conducted at atmospheric pressure rating only.

Duration of application: 5-10 seconds at a 10 percent increase in the dielectric withstanding voltage.

PART NUMBER: M83725/17- (Dash number from table I).

Review activities:

Air Force - 99

DLA - ES

Preparing activity:

Air Force - 85

Agent:

DLA - ES

(Project 5945-F650)